

AMENDMENTS TO THE CLAIMS

Claims 1-12 (Cancel)

Claim 13 (Currently Amended) An apparatus for plating a substrate by immersing the substrate in baths containing plating solutions, the substrate proceeding along a predetermined process path within the apparatus, and the substrate having a surface with fine pits formed thereon, the apparatus comprising:

a first bath containing a first plating solution and being adapted to form a first plating layer within the fine pits;

a second bath disposed after the first bath in the process path and containing a second plating solution different from the first plating solution, said second bath being adapted to form a second plating layer on the first plating;

~~The apparatus of claim 1, further comprising:~~

a first washing station disposed between the first plating bath and the second plating bath in the process path;

a second washing station disposed after the second plating bath in the process path; and

a drying station disposed after the second washing station in the process path.

Claim 14 (Original) The apparatus of claim 13, further comprising:

a first pump in fluid contact with the first plating bath and a source of the first plating solution; and

a second pump in fluid contact with the second plating bath and a source of the second plating solution.

Claim 15 (Currently Amended) The apparatus of claim 13, further comprising:

a preprocessing bath disposed before the first plating bath in the process path and containing an aqueous sulfuric acid solution; and

a third washing station between the preprocessing bath and the first plating bath in the processing path.

Claim 16 (Currently Amended) An apparatus for plating a substrate comprising:

a plating bath;

a first plating solution supply for supplying comprising a first plating solution for supply to said plating bath;

a second plating solution supply for supplying comprising a second plating solution different from the first plating solution for supply to said plating bath; and

a switch for switching the supply of said first plating solution from said first plating solution supply and said second plating solution from said second plating solution supply to said plating bath on and off.

Claims 17-28 (Cancel)

Claim 29 (Original) The apparatus of claim 16, wherein the plating bath is connected to a wash water supply device.

Claim 30 (Original) The apparatus of claim 16, wherein the switch comprises a valve.

Claim 31 (Original) The apparatus of claim 30, wherein the switch comprises a timer for opening and closing the valve.

Claim 32 (New) An apparatus for plating a metal within fine pits in a surface of a substrate, comprising:

a first plating bath for containing a first plating solution to form a first plating layer of the metal by electroplating with a first current density within the fine pits formed in the surface of the substrate, and

a second plating bath for containing a second plating solution different from the first plating solution to form a second plating layer of the metal by electroplating with a second current density on the first plating layer,

wherein said second current density is larger than said first current density.

Claim 33 (New) The apparatus of claim 32, wherein the first plating solution is supplied via a pump and a shut-off valve disposed upstream of the pump, and the second plating solution is supplied via a pump and a shut-off valve disposed upstream of the pump.

Claim 34 (New) The apparatus of claim 32, further comprising a washing station for washing the substrate with the first plating layer prior to form the second plating layer.

Claim 35 (New) An apparatus for plating a plurality of fine pits covered with a barrier layer in a surface of a substrate, comprising:

 a first plating bath for containing a first plating solution to form a first plating layer directly on the entire surface of the barrier layer within the fine pits, and

 a second plating bath for containing a second plating solution to form a second plating layer on the first plating layer.

Claim 36 (New) The apparatus of claim 35, wherein the first plating solution is supplied via a pump and a shut-off valve, which is disposed upstream from the pump, from a first plating solution supplying section; and the second plating solution is supplied via a pump and a shut-off valve, which is disposed upstream from the pump, from a second plating solution supplying section.